A pulsator controller for monitoring and controlling a designated pulsator in a milking system and method of using same is shown. The pulsator controller includes a first sensor operatively connected to a designated pulsator for receiving a pulsating vacuum and for producing a first signal representing the pulsating vacuum level. A processor has a memory for storing pulsator malfunction criteria reference table and reference signals representing a predetermined vacuum range of pulsating vacuum levels programmed as acceptable for milking system pulsators. The processor generates a one control signal when the designated pulsator pulsating vacuum level is at a vacuum level outside of the predetermined vacuum range and an information signal from the pulsator malfunction criteria reference table identifying the pulsator malfunction represented by the control signal. A control circuit is responsive to the at least one control signal for producing a signal representing a programmed condition.

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